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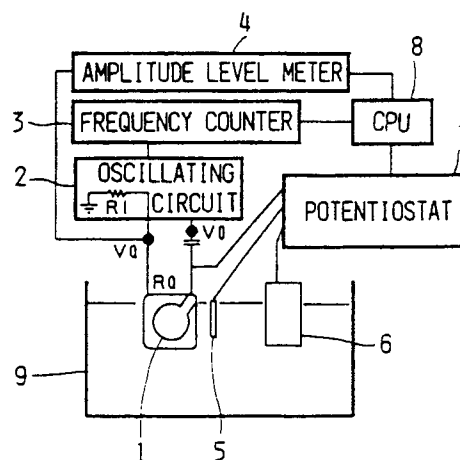
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D-81479 München (DE)(54) **Electrochemical measurement system.**

(57) A quartz crystal resonator is utilized to effect evaluation of viscoelastic nature of a film deposited on an electrode by electrochemical reaction. The quartz crystal resonator 1 is connected to a resonator characteristic measurement unit comprised of an oscillating circuit 2, a frequency counter 3, and an amplitude level meter 4. An electrochemical measurement unit in the form of a potentiostat 7 is connected to a working electrode given in the form of one of electrodes of the resonator 1, a reference electrode 5 and a counter electrode 6. These circuits 3, 4 and 7 are connected to a CPU 8. The resonator 1, reference electrode 5 and counter electrode 6 are dipped into an electrolyte solution in an electrochemical cell 9. In another mode, the system utilizes a quartz crystal resonator precoated with a macromolecule sensitive film for analyzing diffusion and viscosity variation in the film due to migration of electrochemically active substances relative to the film during the course of the electrochemical reaction.

FIG. 1



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EUROPEAN SEARCH REPORT

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DOCUMENTS CONSIDERED TO BE RELEVANT

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
A	EP-A-0 282 332 (SOGO PHARMACEUTICAL COMPANY) * abstract * * page 5, line 49 - page 6, line 7 * ---	1-4	G01N27/416 G01N27/00 G01N27/42
A	EP-A-0 215 669 (SEIKO INSTRUMENTS INC.) * abstract; figure 16 * ---	1-4	
A	DE-A-3 827 577 (SIEPMANN) * abstract; figure 1 * ---	1,3	
A	PATENT ABSTRACTS OF JAPAN vol. 12, no. 188 (P-711)2 June 1988 & JP-A-62 294 952 (JAPAN STORAGE BATTERY CO) 22 December 1987 * abstract * -----	1,5	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			G01N
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 11 OCTOBER 1993	Examiner KEMPF G.V.
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			